

Figure S1

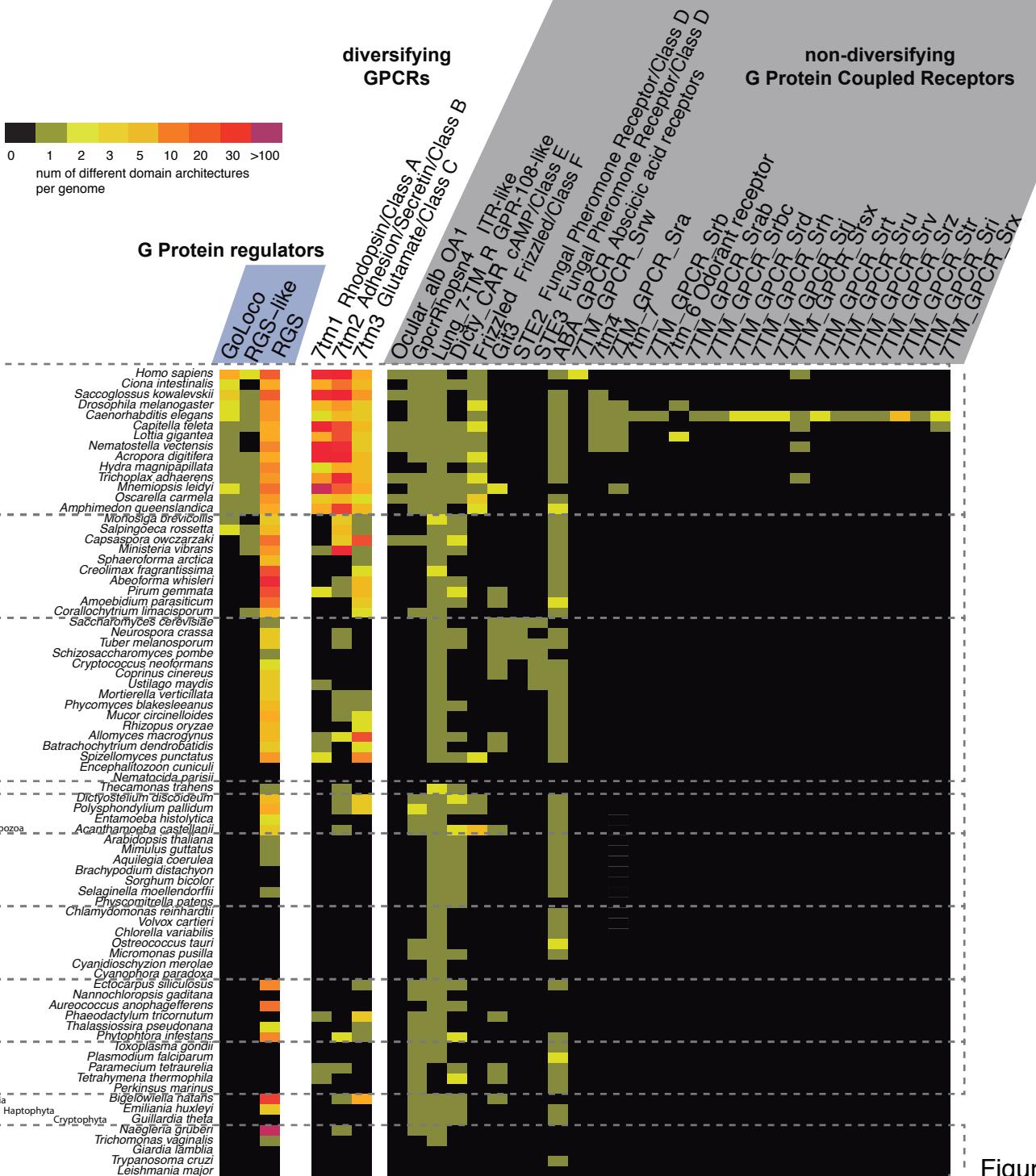


Figure S2



Figure S3

Frizzled/Class F

Git3

cAMP/Class E

Frizzled/
/Fz/Frizzled//Git3/Git3_Cl/
/Git3//Dicty_CAR/PIP5K/
/Dicty_CAR/

AMORPHAE/UNIKONTS

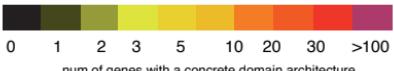
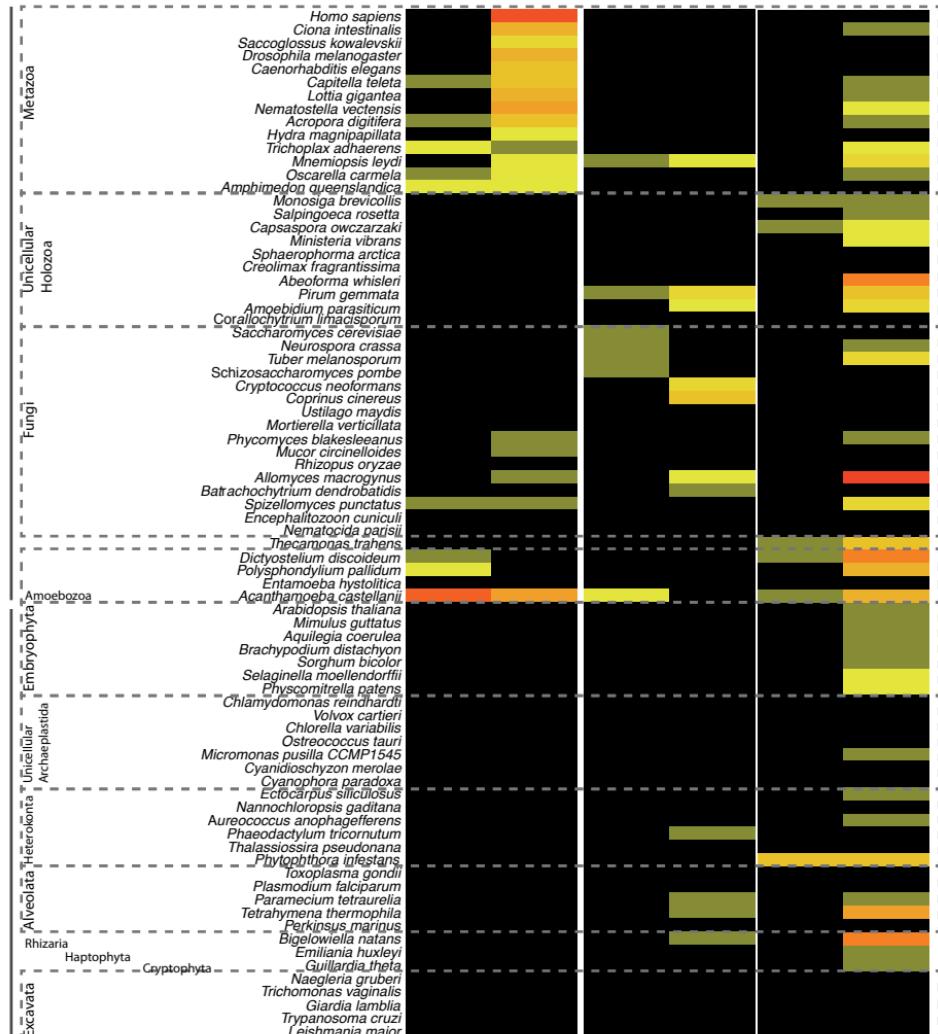


Figure S4

G Protein beta subunit

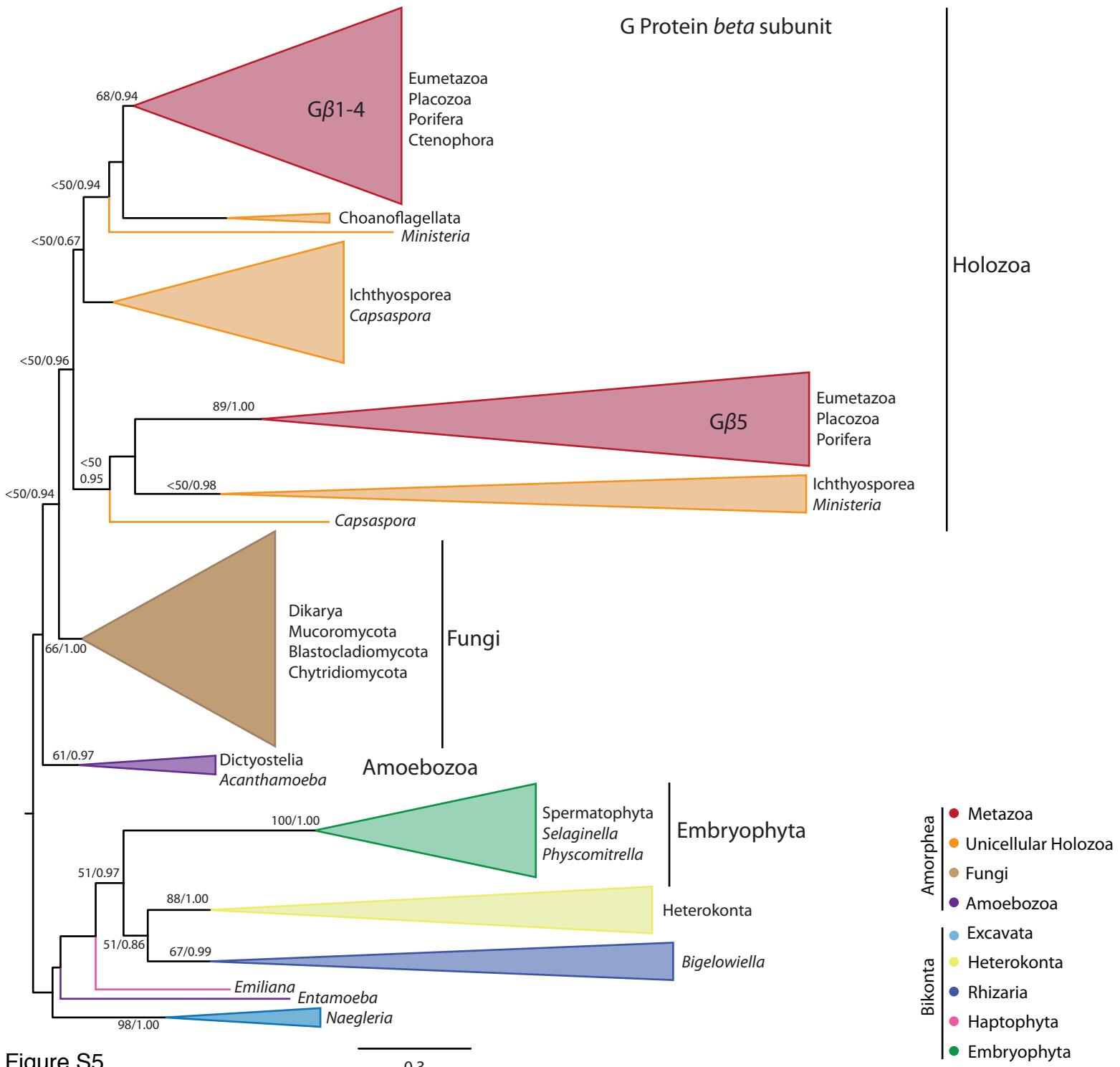


Figure S5

0.3

- Metazoa
- Unicellular Holozoa
- Fungi
- Amoebozoa
- Excavata
- Heterokonta
- Rhizaria
- Haptophyta
- Embryophyta

Regulators of G protein Signaling

GoLoco

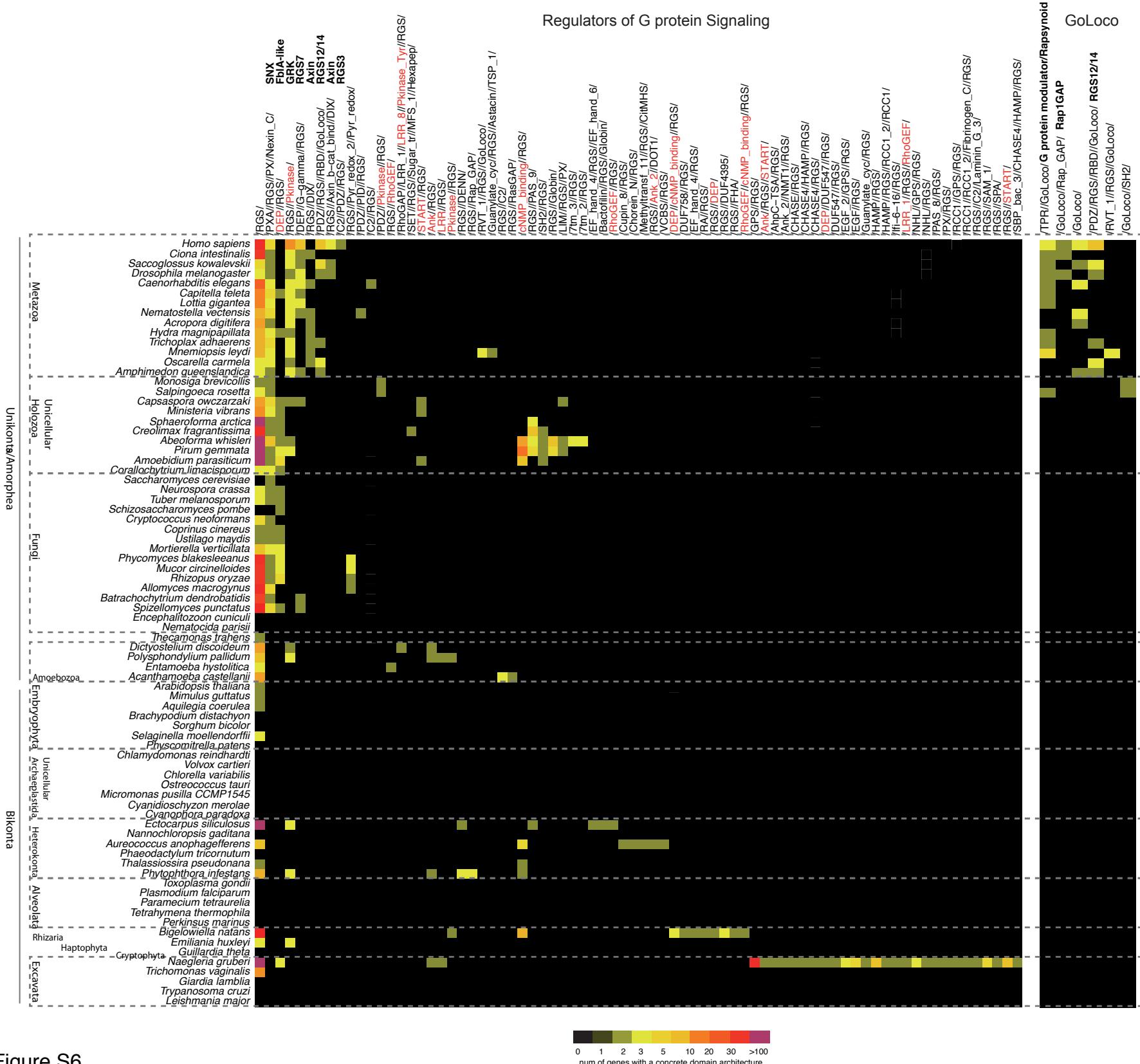


Figure S6

	num TM	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	% TM/Total RGS
METAZOA	Hsap	32	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	5,9
	Cint	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Skow	8	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	20
	Dmel	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	12,5
	Ctel	13	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	13,3
	Lgig	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,1
	Nvec	12	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	7,7
	Adig	9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	10
	Hmag	8	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	20
	Tadh	11	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	15,4
CHOANOFAGELLATA	Mlei	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8,3
	Ocar	6	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	33,3
	Aque	5	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	28,6
FILASTEREA	Mbre	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33,3
	Sros	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	25
ICHTHYOSPOREA	Cowc	6	2	2	0	0	0	0	0	3	1	0	0	1	0	0	0	60
	Mvib	7	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	36,4
	Sarc	22	1	0	3	0	0	1	4	8	0	0	0	0	0	0	0	43,6
	Cfra	12	2	1	0	1	0	1	1	4	0	0	0	0	0	1	0	47,8
	Awhi	71	19	8	8	4	0	0	3	4	2	1	0	0	0	0	0	40,8
	Pgem	88	11	2	3	0	0	0	0	2	0	0	1	1	0	0	0	18,5
	Apar	46	9	9	3	0	0	1	0	0	0	0	0	0	0	0	0	32,3
	Clim	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	40
	Spom	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100
	Tmel	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	50
FUNGI	Ncra	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	50
	Cneo	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	75
	Ccin	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	66,6
	Umay	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	66,6
	Mver	5	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	37,5
	Pbla	14	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	26,3
	Mcir	11	2	1	3	0	0	0	1	0	0	0	0	0	0	0	0	38,9
	Rory	13	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	27,8
	Amac	10	3	0	1	4	1	0	0	0	0	0	0	0	1	0	0	50
	Bden	6	0	1	0	1	1	2	2	0	1	0	0	0	0	0	0	57,1
APUSOZOA	Spun	14	1	0	4	1	0	1	1	0	0	0	0	0	0	0	0	36,4
	Ttra	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AMOEBOZOA	Ddis	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Ppal	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Ehis	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Acas	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EMBRYOPHYTA	Atha	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	100
	Mgut	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	100
	Acoe	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	100
HETEROKONTA	Esil	24	1	2	2	6	4	7	1	0	0	0	0	0	0	0	0	48,9
	Aano	9	1	1	0	1	0	0	0	0	0	0	1	0	0	0	0	30,7
	Tpse	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pinf	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RHIZARIA	Bnat	20	4	2	0	2	3	1	2	0	0	0	0	0	0	0	0	41,2
	Ehux	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXCAVATA	Ngru	86	5	37	8	12	4	7	46	20	4	0	1	0	0	0	1	62,8
	Tvag	2	0	0	0	1	1	0	3	0	0	0	0	0	0	0	0	71,4

Figure S7

Ric8

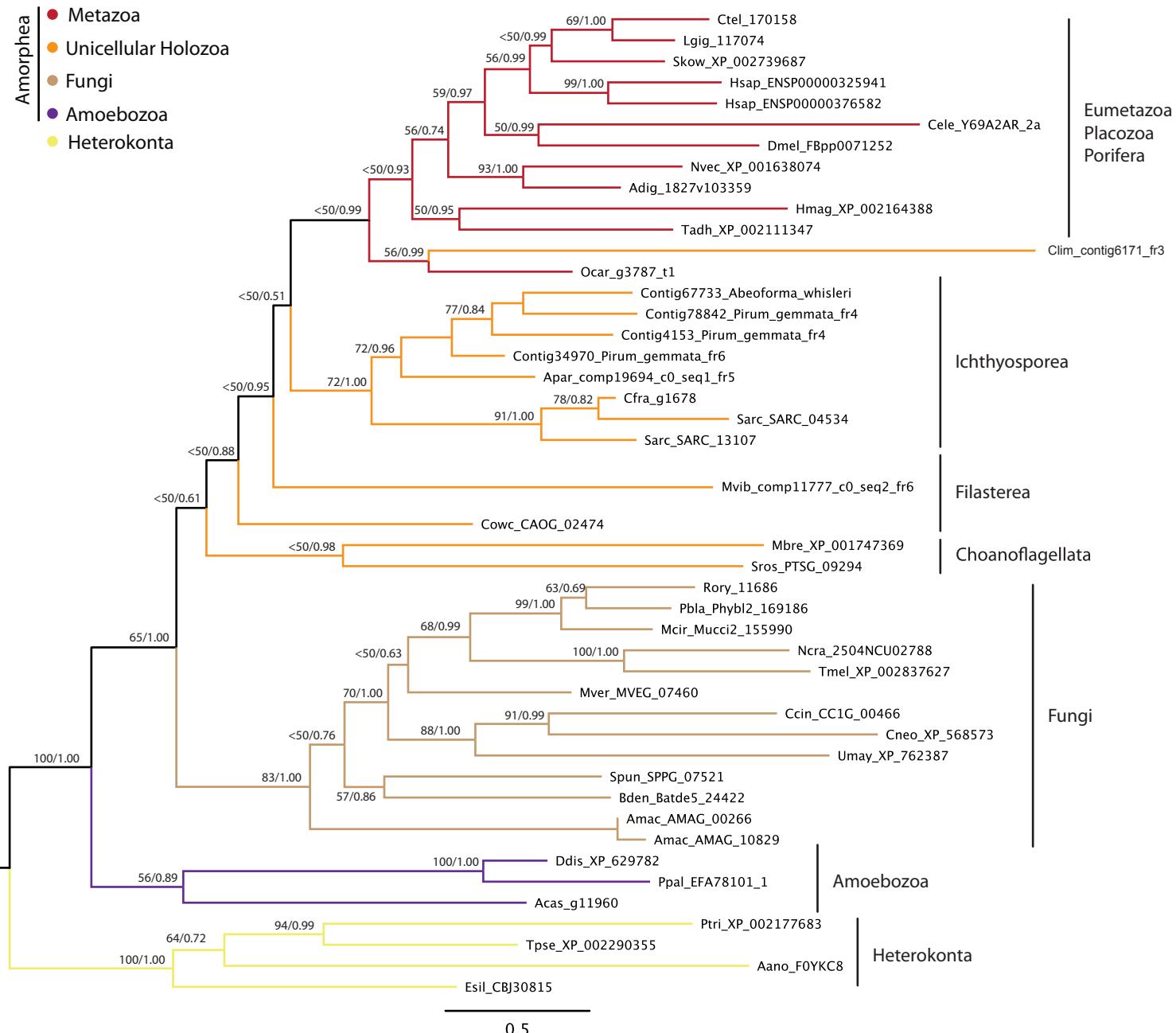
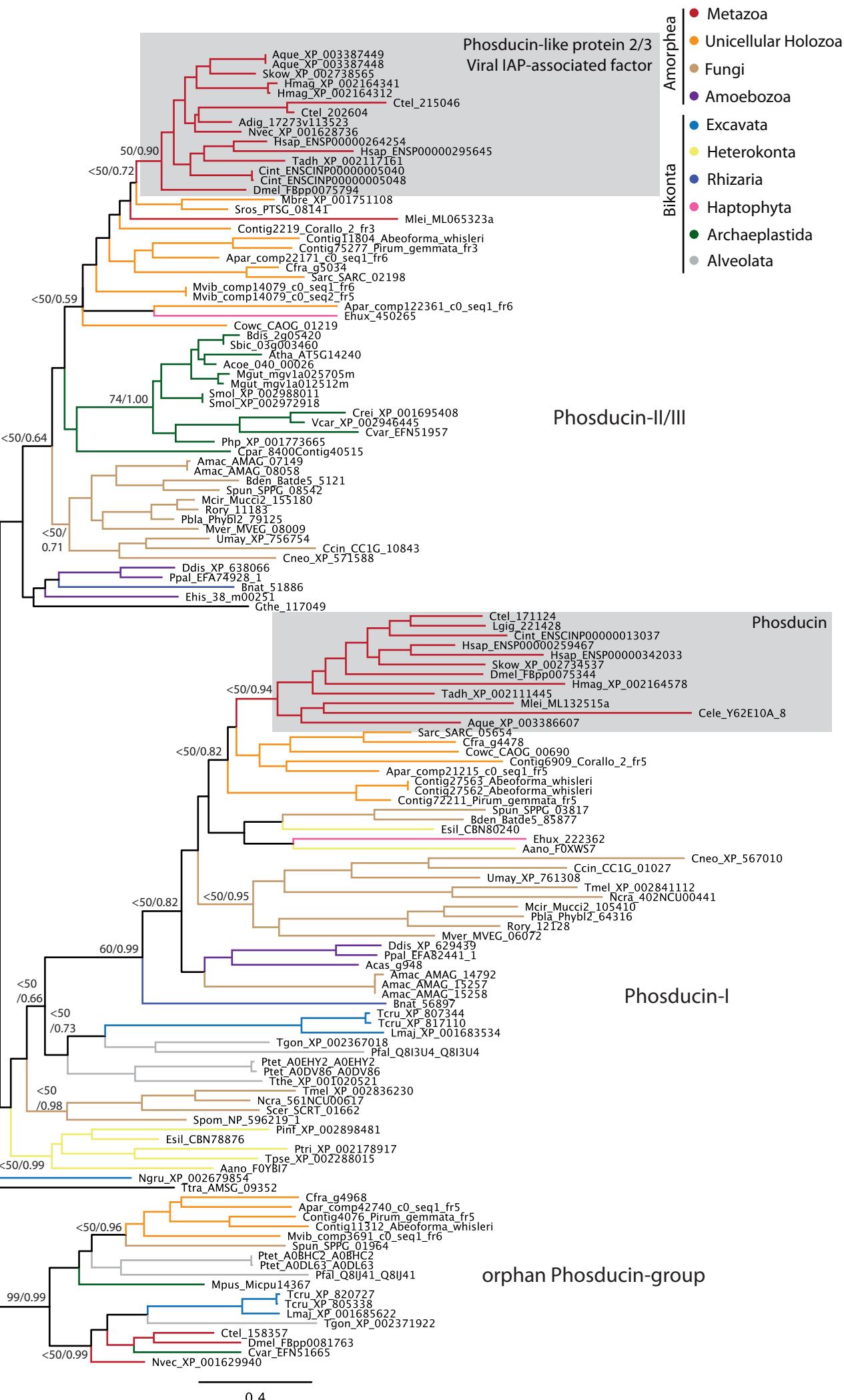


Figure S8

Phosducin



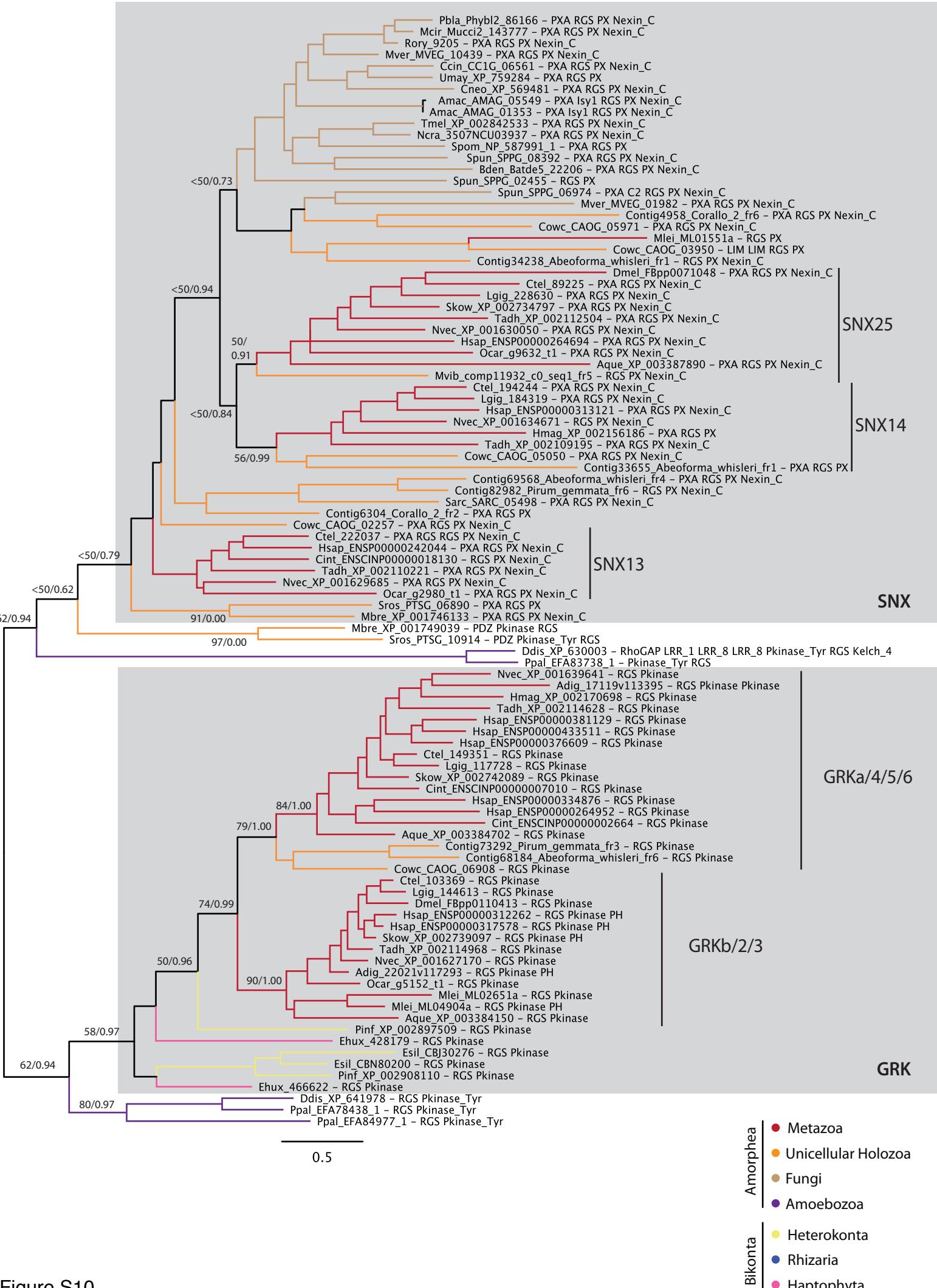
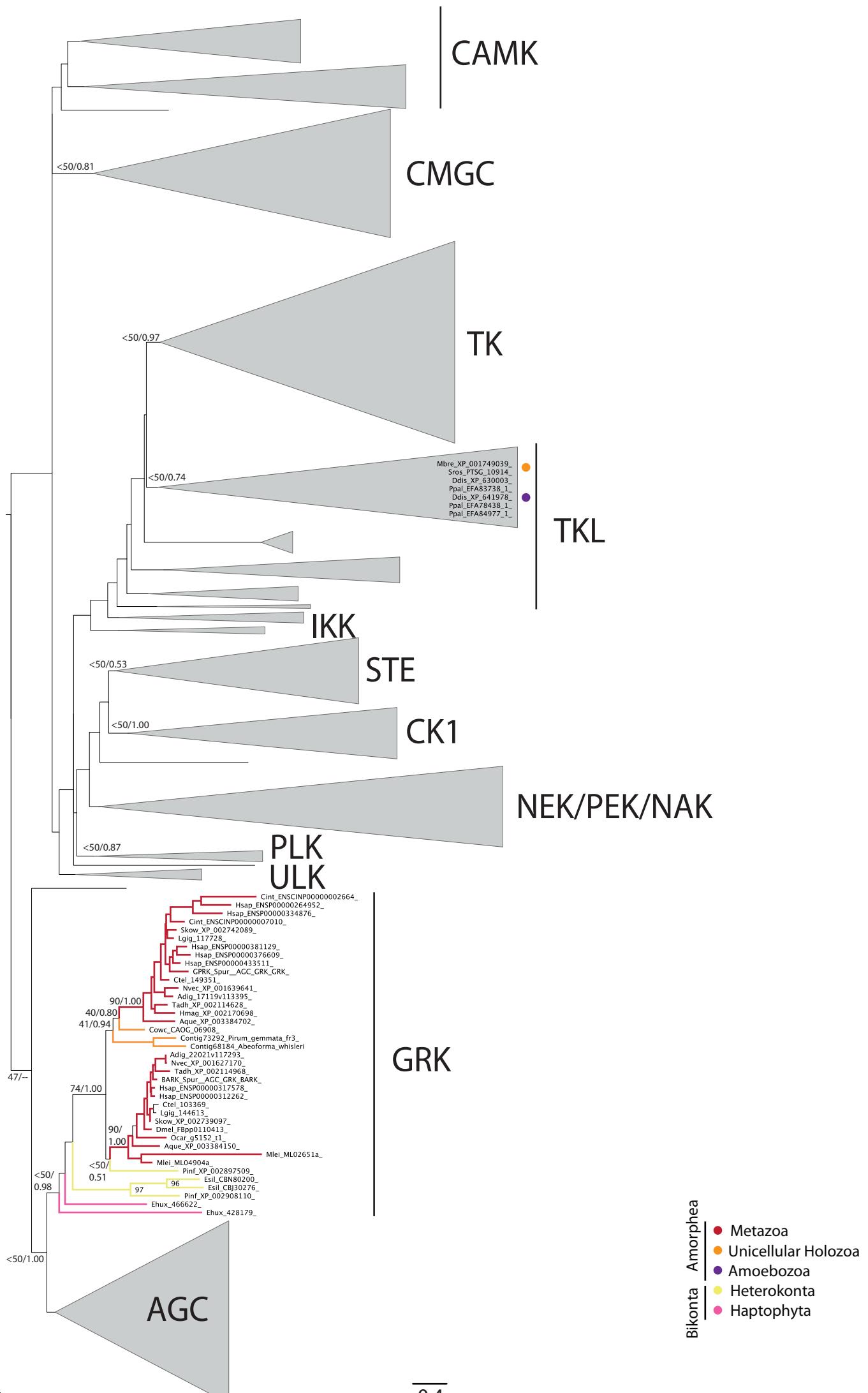


Figure S10



ARRESTIN DOMAIN

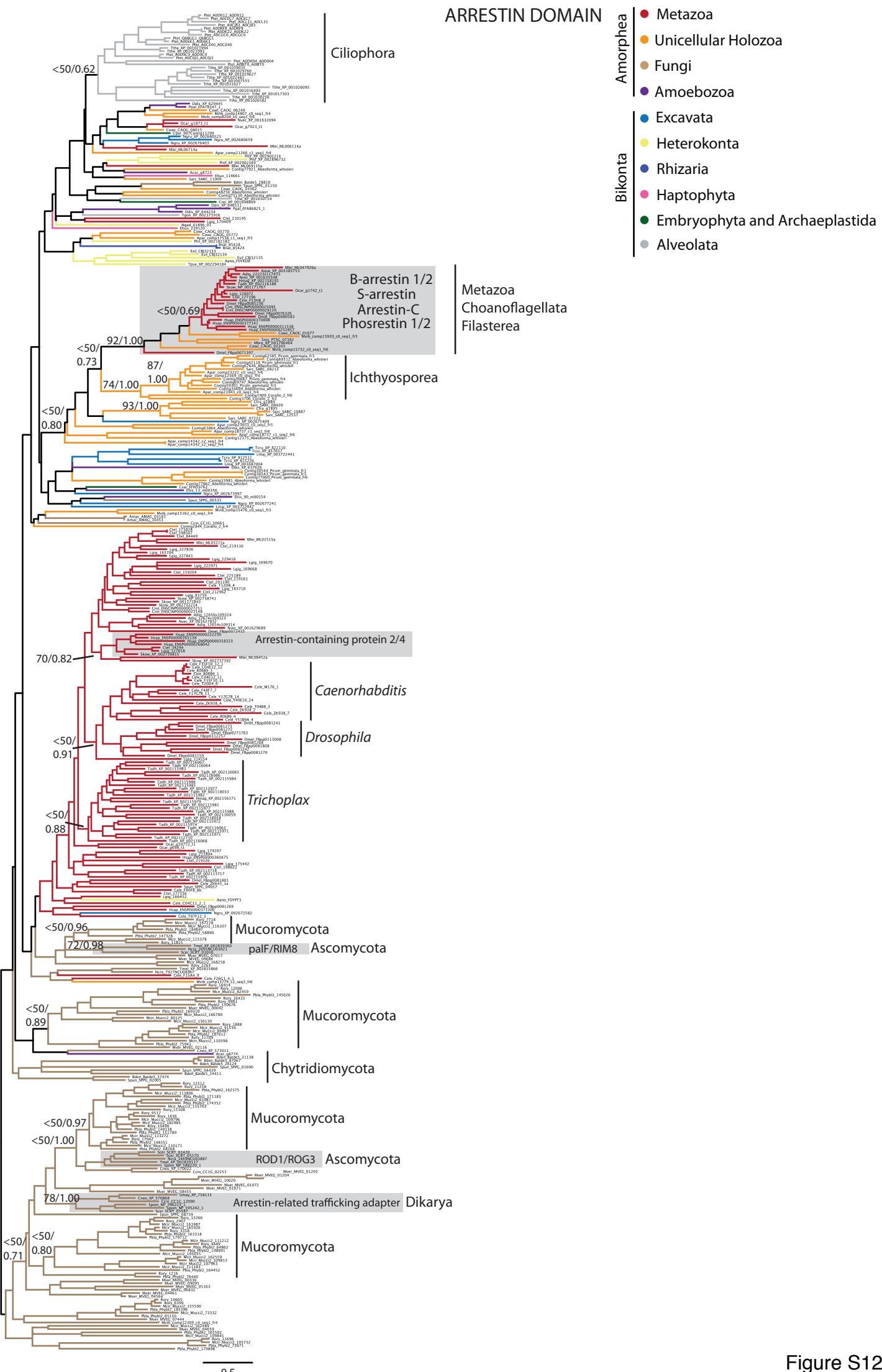


Figure S12

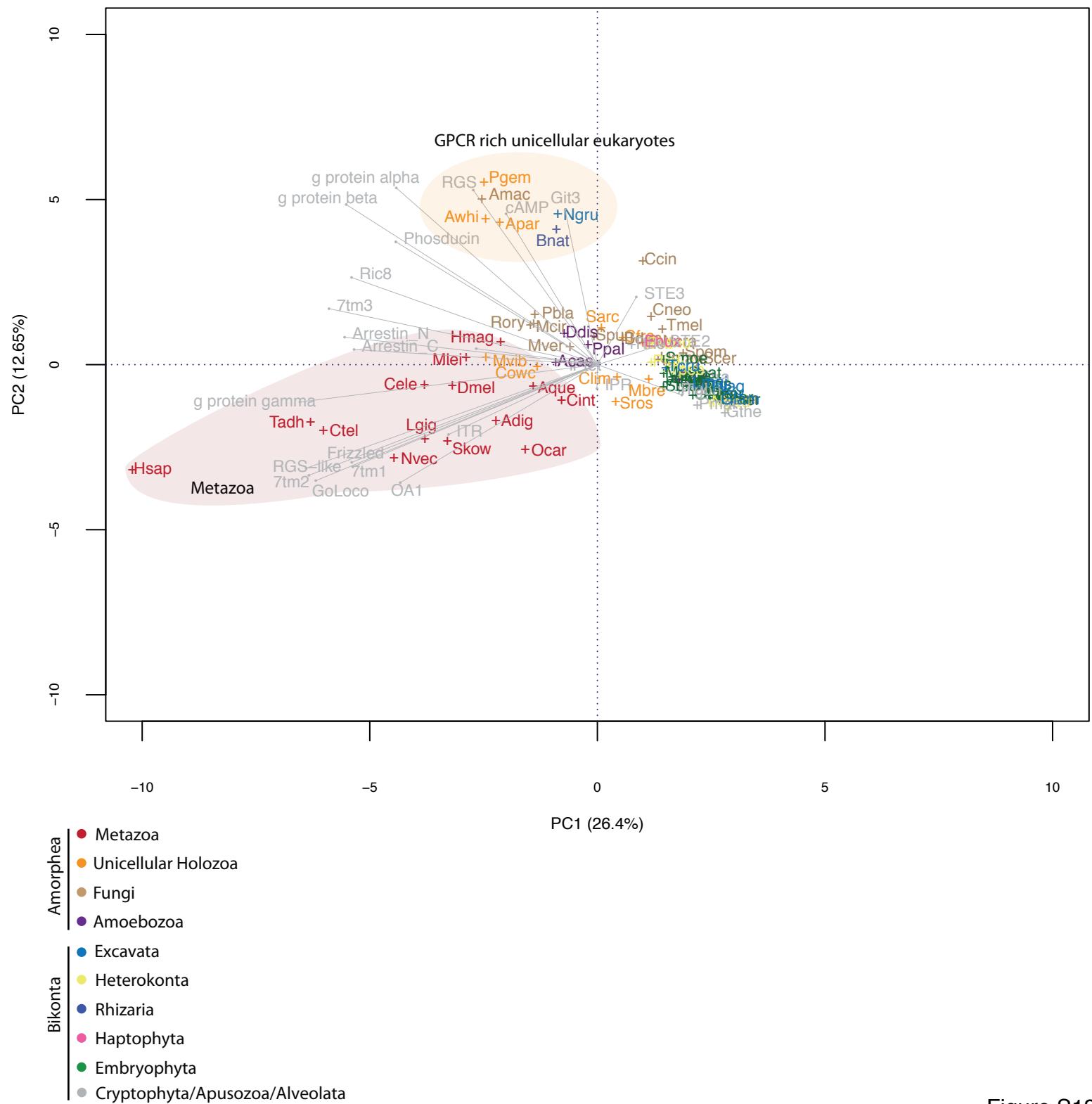


Figure S13